

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	01	01	45	34		0.00		0.0		0.0								
1980	01	02	42	34		0.00		0.0		0.0								
1980	01	03	38	28		0.00		0.0		0.0								
1980	01	04	30	21		T		T		0.0								
1980	01	05	32	26		0.07		2.0		1.0								
1980	01	06	32	19		0.00		0.0		1.0								
1980	01	07	40	27		T		T		0.0								
1980	01	08	38	31		0.00		0.0		0.0								
1980	01	09	32	29		T		T		T								
1980	01	10	34	23		0.00		0.0		0.0								
1980	01	11	59	34		0.81		0.0		0.0								
1980	01	12	60	26		0.20		0.0		0.0								
1980	01	13	33	23		0.00		0.0		0.0								
1980	01	14	51	33		0.01		0.0		0.0								
1980	01	15	51	40		0.00		0.0		0.0								
1980	01	16	47	34		0.00		0.0		0.0								
1980	01	17	40	34		T		0.0		0.0								
1980	01	18	45	38		0.44		0.0		0.0								
1980	01	19	44	38		0.11		0.0		0.0								
1980	01	20	43	30		0.00		0.0		0.0								
1980	01	21	40	28		0.00		0.0		0.0								
1980	01	22	43	32		0.08		0.0		0.0								
1980	01	23	44	26		T		T		0.0								
1980	01	24	27	20		0.00		0.0		0.0								
1980	01	25	30	21		T		T		0.0								
1980	01	26	33	24		0.00		0.0		0.0								
1980	01	27	34	26		0.00		0.0		0.0								
1980	01	28	39	29		0.00		0.0		0.0								
1980	01	29	33	23		0.00		0.0		0.0								
1980	01	30	32	20		0.00		0.0		0.0								
1980	01	31	29	17		0.00		0.0		0.0								
Summary			39	28		1.72		2.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	02	01	26	14		0.00		0.0		0.0								
1980	02	02	29	17		0.00		0.0		0.0								
1980	02	03	31	17		0.00		0.0		0.0								
1980	02	04	33	22		0.00		0.0		0.0								
1980	02	05	35	19		0.00		0.0		0.0								
1980	02	06	31	20		0.00		0.0		0.0								
1980	02	07	35	29		0.00		0.0		0.0								
1980	02	08	44	24		0.00		0.0		0.0								
1980	02	09	36	23		0.00		0.0		0.0								
1980	02	10	38	23		0.00		0.0		0.0								
1980	02	11	39	24		0.00		0.0		0.0								
1980	02	12	36	29		T		T		0.0								
1980	02	13	40	25		0.00		0.0		0.0								
1980	02	14	47	30		0.00		0.0		0.0								
1980	02	15	38	30		T		T		0.0								
1980	02	16	38	23		0.74		1.6		2.0								
1980	02	17	29	20		0.00		0.0		T								
1980	02	18	33	19		0.00		0.0		T								
1980	02	19	46	28		0.00		0.0		T								
1980	02	20	51	33		0.00		0.0		0.0								
1980	02	21	57	41		0.00		0.0		0.0								
1980	02	22	42	32		0.30		1.1		1.0								
1980	02	23	50	36		0.00		0.0		T								
1980	02	24	50	38		T		0.0		0.0								
1980	02	25	43	35		0.00		0.0		0.0								
1980	02	26	35	18		0.00		0.0		0.0								
1980	02	27	36	18		T		T		0.0								
1980	02	28	31	21		0.00		0.0		T								
1980	02	29	21	12		0.00		0.0		T								
Summary			38	25		1.04		2.7										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

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"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	03	01	26	10		T		T		0.0								
1980	03	02	28	14		T		T		0.0								
1980	03	03	40	18		0.00		0.0		0.0								
1980	03	04	53	30		0.00		0.0		0.0								
1980	03	05	50	38		0.10		0.0		0.0								
1980	03	06	48	33		0.00		0.0		0.0								
1980	03	07	52	37		T		0.0		0.0								
1980	03	08	58	44		0.48		0.0		0.0								
1980	03	09	53	39		0.00		0.0		0.0								
1980	03	10	53	38		0.56		0.0		0.0								
1980	03	11	47	30		0.45		T		T								
1980	03	12	36	23		T		T		0.0								
1980	03	13	33	23		0.75		3.6		0.0								
1980	03	14	39	31		0.52		1.0		2.0								
1980	03	15	42	32		0.00		0.0		1.0								
1980	03	16	48	25		0.00		0.0		T								
1980	03	17	59	38		0.12		0.0		T								
1980	03	18	59	38		0.39		0.0		0.0								
1980	03	19	58	35		0.00		0.0		0.0								
1980	03	20	58	43		0.00		0.0		0.0								
1980	03	21	55	43		2.21		0.0		0.0								
1980	03	22	43	36		1.04		T		0.0								
1980	03	23	57	35		0.00		0.0		0.0								
1980	03	24	54	38		0.42		0.0		0.0								
1980	03	25	43	37		0.42		T		0.0								
1980	03	26	47	38		0.00		0.0		0.0								
1980	03	27	56	38		0.00		0.0		0.0								
1980	03	28	54	40		T		0.0		0.0								
1980	03	29	50	45		0.92		0.0		0.0								
1980	03	30	56	46		0.01		0.0		0.0								
1980	03	31	48	35		2.02		T		0.0								
Summary			48	34		10.41		4.6										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	04	01	58	36		0.01		T		0.0								
1980	04	02	53	41		0.00		0.0		0.0								
1980	04	03	67	45		0.00		0.0		0.0								
1980	04	04	64	50		0.64		0.0		0.0								
1980	04	05	60	44		0.00		0.0		0.0								
1980	04	06	68	47		0.00		0.0		0.0								
1980	04	07	62	45		0.00		0.0		0.0								
1980	04	08	64	44		T		0.0		0.0								
1980	04	09	57	55		3.42		0.0		0.0								
1980	04	10	72	54		0.04		0.0		0.0								
1980	04	11	69	52		0.00		0.0		0.0								
1980	04	12	68	51		0.01		0.0		0.0								
1980	04	13	70	54		T		0.0		0.0								
1980	04	14	59	44		0.91		0.0		0.0								
1980	04	15	65	49		0.01		0.0		0.0								
1980	04	16	49	34		T		0.0		0.0								
1980	04	17	60	32		0.00		0.0		0.0								
1980	04	18	65	45		0.00		0.0		0.0								
1980	04	19	68	49		0.00		0.0		0.0								
1980	04	20	74	52		0.00		0.0		0.0								
1980	04	21	76	56		0.00		0.0		0.0								
1980	04	22	65	44		0.00		0.0		0.0								
1980	04	23	73	40		0.00		0.0		0.0								
1980	04	24	66	48		0.00		0.0		0.0								
1980	04	25	61	47		0.03		0.0		0.0								
1980	04	26	61	48		T		0.0		0.0								
1980	04	27	52	47		0.33		0.0		0.0								
1980	04	28	47	45		2.74		0.0		0.0								
1980	04	29	49	45		0.11		0.0		0.0								
1980	04	30	59	47		0.01		0.0		0.0								
Summary			63	46		8.26		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	06	01	85	65		0.01		0.0		0.0								
1980	06	02	83	67		0.06		0.0		0.0								
1980	06	03	84	67		1.08		0.0		0.0								
1980	06	04	75	63		0.00		0.0		0.0								
1980	06	05	77	59		0.00		0.0		0.0								
1980	06	06	78	59		0.01		0.0		0.0								
1980	06	07	76	64		0.72		0.0		0.0								
1980	06	08	80	52		0.59		0.0		0.0								
1980	06	09	63	47		0.63		0.0		0.0								
1980	06	10	66	53		0.01		0.0		0.0								
1980	06	11	70	49		0.00		0.0		0.0								
1980	06	12	74	52		0.00		0.0		0.0								
1980	06	13	76	56		0.00		0.0		0.0								
1980	06	14	83	56		0.00		0.0		0.0								
1980	06	15	85	67		T		0.0		0.0								
1980	06	16	75	64		0.00		0.0		0.0								
1980	06	17	77	59		0.00		0.0		0.0								
1980	06	18	74	58		0.00		0.0		0.0								
1980	06	19	77	59		0.00		0.0		0.0								
1980	06	20	73	60		T		0.0		0.0								
1980	06	21	80	59		0.00		0.0		0.0								
1980	06	22	86	63		0.00		0.0		0.0								
1980	06	23	87	66		0.00		0.0		0.0								
1980	06	24	89	69		0.00		0.0		0.0								
1980	06	25	89	74		0.00		0.0		0.0								
1980	06	26	82	70		0.00		0.0		0.0								
1980	06	27	94	71		0.00		0.0		0.0								
1980	06	28	81	67		T		0.0		0.0								
1980	06	29	77	64		0.70		0.0		0.0								
1980	06	30	81	63		0.03		0.0		0.0								
Summary			79	61		3.84		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	07	01	82	62		0.00		0.0		0.0								
1980	07	02	83	69		0.26		0.0		0.0								
1980	07	03	75	69		0.38		0.0		0.0								
1980	07	04	89	70		0.00		0.0		0.0								
1980	07	05	86	69		0.25		0.0		0.0								
1980	07	06	79	67		0.00		0.0		0.0								
1980	07	07	82	61		0.00		0.0		0.0								
1980	07	08	82	68		T		0.0		0.0								
1980	07	09	88	68		0.00		0.0		0.0								
1980	07	10	85	71		0.00		0.0		0.0								
1980	07	11	90	70		T		0.0		0.0								
1980	07	12	84	70		0.01		0.0		0.0								
1980	07	13	86	64		0.00		0.0		0.0								
1980	07	14	91	67		0.00		0.0		0.0								
1980	07	15	91	72		0.00		0.0		0.0								
1980	07	16	99	77		0.03		0.0		0.0								
1980	07	17	90	73		0.27		0.0		0.0								
1980	07	18	91	75		0.00		0.0		0.0								
1980	07	19	87	75		0.00		0.0		0.0								
1980	07	20	101	79		0.00		0.0		0.0								
1980	07	21	102	82		0.00		0.0		0.0								
1980	07	22	94	72		0.28		0.0		0.0								
1980	07	23	83	73		0.07		0.0		0.0								
1980	07	24	87	69		0.00		0.0		0.0								
1980	07	25	92	71		0.00		0.0		0.0								
1980	07	26	93	75		0.24		0.0		0.0								
1980	07	27	88	75		0.00		0.0		0.0								
1980	07	28	85	74		0.00		0.0		0.0								
1980	07	29	77	70		3.47		0.0		0.0								
1980	07	30	86	71		0.00		0.0		0.0								
1980	07	31	89	71		0.00		0.0		0.0								
Summary			88	71		5.26		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	08	01	84	75		T		0.0		0.0								
1980	08	02	91	70		0.24		0.0		0.0								
1980	08	03	92	70		0.08		0.0		0.0								
1980	08	04	91	73		0.00		0.0		0.0								
1980	08	05	94	78		0.02		0.0		0.0								
1980	08	06	93	76		0.00		0.0		0.0								
1980	08	07	94	76		0.00		0.0		0.0								
1980	08	08	96	80		0.00		0.0		0.0								
1980	08	09	95	80		0.00		0.0		0.0								
1980	08	10	86	74		T		0.0		0.0								
1980	08	11	93	75		0.45		0.0		0.0								
1980	08	12	88	76		0.04		0.0		0.0								
1980	08	13	89	71		0.00		0.0		0.0								
1980	08	14	84	71		0.00		0.0		0.0								
1980	08	15	84	76		0.03		0.0		0.0								
1980	08	16	78	68		0.00		0.0		0.0								
1980	08	17	85	64		0.00		0.0		0.0								
1980	08	18	83	68		T		0.0		0.0								
1980	08	19	84	70		T		0.0		0.0								
1980	08	20	77	70		T		0.0		0.0								
1980	08	21	75	67		T		0.0		0.0								
1980	08	22	82	68		T		0.0		0.0								
1980	08	23	89	66		0.00		0.0		0.0								
1980	08	24	91	67		0.00		0.0		0.0								
1980	08	25	93	74		0.00		0.0		0.0								
1980	08	26	95	72		0.00		0.0		0.0								
1980	08	27	97	76		0.00		0.0		0.0								
1980	08	28	95	72		0.00		0.0		0.0								
1980	08	29	83	69		0.00		0.0		0.0								
1980	08	30	86	73		0.00		0.0		0.0								
1980	08	31	90	74		0.30		0.0		0.0								
Summary			88	72		1.16		0.0										

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National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 140 ft. Lat: 40.7790° N Lon: -73.9693° W
Station: NY CITY CENTRAL PARK, NY US USW00094728

Record of Climatological Observations
These data are quality controlled and may not be identical
to the original observations.

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Generated on 08/07/2018

Observation Time Temperature: Unknown Observation Time Precipitation: 2400

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	09	01	95	76		0.00		0.0		0.0								
1980	09	02	96	75		0.18		0.0		0.0								
1980	09	03	89	69		0.00		0.0		0.0								
1980	09	04	84	69		0.00		0.0		0.0								
1980	09	05	78	72		T		0.0		0.0								
1980	09	06	89	71		0.00		0.0		0.0								
1980	09	07	85	69		0.00		0.0		0.0								
1980	09	08	80	63		0.00		0.0		0.0								
1980	09	09	79	60		0.00		0.0		0.0								
1980	09	10	80	63		T		0.0		0.0								
1980	09	11	83	57		0.00		0.0		0.0								
1980	09	12	84	67		0.00		0.0		0.0								
1980	09	13	81	67		0.00		0.0		0.0								
1980	09	14	84	71		0.03		0.0		0.0								
1980	09	15	74	61		0.00		0.0		0.0								
1980	09	16	69	59		0.00		0.0		0.0								
1980	09	17	75	61		0.91		0.0		0.0								
1980	09	18	73	57		0.62		0.0		0.0								
1980	09	19	79	53		0.00		0.0		0.0								
1980	09	20	78	61		0.00		0.0		0.0								
1980	09	21	86	67		0.00		0.0		0.0								
1980	09	22	94	73		0.00		0.0		0.0								
1980	09	23	85	61		0.00		0.0		0.0								
1980	09	24	70	57		0.00		0.0		0.0								
1980	09	25	62	57		0.16		0.0		0.0								
1980	09	26	72	51		0.08		0.0		0.0								
1980	09	27	62	45		0.00		0.0		0.0								
1980	09	28	76	50		0.00		0.0		0.0								
1980	09	29	62	51		0.00		0.0		0.0								
1980	09	30	72	58		T		0.0		0.0								
Summary			79	62		1.98		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	11	01	54	43		0.00		0.0		0.0								
1980	11	02	51	39		0.00		0.0		0.0								
1980	11	03	53	36		0.00		0.0		0.0								
1980	11	04	58	49		0.32		0.0		0.0								
1980	11	05	55	39		0.00		0.0		0.0								
1980	11	06	50	37		0.00		0.0		0.0								
1980	11	07	68	44		0.03		0.0		0.0								
1980	11	08	62	42		0.01		0.0		0.0								
1980	11	09	56	38		0.18		0.0		0.0								
1980	11	10	51	36		0.00		0.0		0.0								
1980	11	11	42	34		0.00		0.0		0.0								
1980	11	12	46	35		0.00		0.0		0.0								
1980	11	13	58	37		0.00		0.0		0.0								
1980	11	14	71	48		0.00		0.0		0.0								
1980	11	15	49	40		T		0.0		0.0								
1980	11	16	45	32		0.00		0.0		0.0								
1980	11	17	41	28		0.31		T		0.0								
1980	11	18	38	33		0.66		T		0.0								
1980	11	19	40	33		0.00		0.0		0.0								
1980	11	20	48	35		0.00		0.0		0.0								
1980	11	21	49	37		0.00		0.0		0.0								
1980	11	22	50	41		0.00		0.0		0.0								
1980	11	23	52	38		0.00		0.0		0.0								
1980	11	24	57	48		0.90		0.0		0.0								
1980	11	25	56	38		0.00		0.0		0.0								
1980	11	26	49	35		0.00		0.0		0.0								
1980	11	27	41	34		0.02		T		0.0								
1980	11	28	55	40		1.68		0.0		0.0								
1980	11	29	43	36		0.00		0.0		0.0								
1980	11	30	48	36		0.00		0.0		0.0								
Summary			51	38		4.11		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
1980	12	01	56	43		0.00		0.0		0.0								
1980	12	02	60	47		0.02		0.0		0.0								
1980	12	03	47	26		T		T		0.0								
1980	12	04	35	24		0.00		0.0		0.0								
1980	12	05	40	22		0.00		0.0		0.0								
1980	12	06	45	24		0.00		0.0		0.0								
1980	12	07	50	33		0.01		0.0		0.0								
1980	12	08	64	46		0.00		0.0		0.0								
1980	12	09	63	39		0.18		0.0		0.0								
1980	12	10	43	38		0.00		0.0		0.0								
1980	12	11	39	25		T		T		0.0								
1980	12	12	41	27		0.00		0.0		0.0								
1980	12	13	52	30		0.00		0.0		0.0								
1980	12	14	38	20		T		T		0.0								
1980	12	15	31	18		0.09		1.1		0.0								
1980	12	16	37	31		0.01		T		T								
1980	12	17	32	21		0.00		0.0		0.0								
1980	12	18	40	21		0.00		0.0		0.0								
1980	12	19	41	17		0.00		0.0		0.0								
1980	12	20	26	14		0.00		0.0		0.0								
1980	12	21	27	16		0.00		0.0		0.0								
1980	12	22	32	19		0.00		0.0		0.0								
1980	12	23	34	29		0.16		0.6		0.0								
1980	12	24	37	20		0.10		1.0		1.0								
1980	12	25	20	-1		0.00		0.0		T								
1980	12	26	23	8		0.00		0.0		T								
1980	12	27	31	20		T		T		T								
1980	12	28	37	27		0.01		0.1		T								
1980	12	29	44	37		0.00		0.0		0.0								
1980	12	30	44	20		0.00		0.0		0.0								
1980	12	31	27	14		0.00		0.0		0.0								
Summary			40	25		0.58		2.8										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

GHCN (Global Historical Climatology Network) – Daily Documentation

NOTE: English units are displayed on pdf output format; Either Metric or standard English units on csv or txt output formats depending on user specification.

I. Description

GHCN (Global Historical Climatology Network)-Daily is a database that addresses the critical need for historical daily temperature, precipitation, and snow records over global land areas. GHCN-Daily is a composite of climate records from numerous sources that were merged and then subjected to a suite of quality assurance reviews. The archive includes over 40 meteorological elements (see Table 4 below for complete list) including temperature daily maximum/minimum, temperature at observation time, precipitation, snowfall, snow depth, evaporation, wind movement, wind maximums, soil temperature, cloudiness, and more.

GHCN-Daily will serve as a replacement product for older NCDC-maintained data sets that are designated for daily temporal resolution (i.e. DSI 3200, DSI 3201, DSI 3202, DSI 3205, DSI 3206, DSI 3208, DSI 3210, etc.). It will function as the official archive for daily data from the Global Climate Observing System (GCOS) Surface Network (GSN) and is particularly well suited for monitoring and assessment activities related to the frequency and magnitude of extremes. Containing observations of one or more of the above elements at more than 100,000 stations that are distributed across all continents, the dataset is the world's largest collection of daily climatological data. The total of 1.4 billion data values includes 250 million values each for maximum and minimum temperatures, 500 million precipitation totals, and 200 million observations each for snowfall and snow depth. Station records, some of which extend back to the 19th century, are updated daily where possible and are usually available one to two days after the date and time of the observation.

Some of the data provided here are based on data exchanged under the World Meteorological Organization (WMO) World Weather Watch Program according to WMO Resolution 40 (Cg-XII). This allows WMO member countries to place restrictions on the use or re-export of their data for commercial purposes outside of the receiving country. Those countries' data summaries and products which are available here are intended for free and unrestricted use in research, education, and other non-commercial activities. For non-U.S. locations data, the data or any derived product shall not be provided to other users or be used for the re-export of commercial services.

II. Format/Observation Definitions

(note: the term 'element' or 'value' is used throughout this documentation and refers to an individual meteorological/climatological measurement or statistical value such as temperature, precipitation (amount), etc.)

Users are given the choice between the following two delivery formats:

- 1) GHCN-Daily Form - Portable Document Format (PDF) output giving 5 core values (see Table 4) and, if available, the following additional values: TOBS (temperature at the time of observation), EVAP (evaporation of water from evaporation pan), WDMV (24-hour wind movement), SN*# (minimum soil temperature) and SX*# (maximum soil temperature). More details about these values are in Table 4 (below). There are no flags (attributes) given with the GHCN- Daily Form pdf file other than measurement flag “T” (trace value for precipitation, snowfall or snow depth, as per table 3 below). Units for data values can be in metric or standard depending on user preference for both CSV and text output. Empty, or blank, cells indicate that a data observation was not reported.
- 2) Custom GHCN-Daily CSV- Output files contain .csv extension and optimized for spreadsheet usage (i.e. delimited file). Besides unit preference, user is also given the choice whether to include flags, station name or geographic location in data request. The user can define which of the elements listed in Table 4 (below) to include in the data request.
- 3) Custom GHCN-Daily ASCII Form-Output is ASCII text file and the user is given the choice whether to include flags, station name or geographic location in data request. The user can define which of the elements listed in Table 4 (below) to include in the data request.

A. Data observations (values)

Each record represents all selected observations (values) available for a given station-day. The initial section of each record is ordered as follows with the following definitions:

STATION (17 characters) is the station identification code. Please see

<http://www1.ncdc.noaa.gov/pub/data/ghcn/daily/ghcnd-stations.txt>

for a complete list of stations and their metadata.

STATION_NAME (max 50 characters) is the name of the station (usually city/airport name). Optional output field.

GEOGRAPHIC_LOCATION (31 characters) is the latitude (decimated degrees w/northern hemisphere values > 0, southern hemisphere values < 0), longitude (decimated degrees w/western hemisphere values < 0, eastern hemisphere values > 0) and elevation above mean sea level (tenths of meters). This is an optional output field.

DATE is the year of the record (4 digits) followed by month (2 digits) and day (2 digits).

B. Observations (values) and flags (attributes)

Following this initial section of the record, all selected observations and flags are given in the following order:

Observation(s) | Measurement Flag | Quality Flag | Source Flag | Time of Observation | repeat for next element (when more than one element is selected), where:

Observation(s) is/are defined in Table 4 below. 9's in a field (e.g.9999) indicate missing data or data that has not been received.

Measurement Flag (attribute) is defined in **Table 1** below

Quality Flag (attribute) is defined in **Table 2** below

Source Flag (attribute) is defined in **Table 3** below

Time of Observation is the (2 digit hour, 2 digit minute) 24 hour clock time of the observation given as the local time at the station of record.

Note: The 4 flags listed above are optional on the Custom GHCN-Daily ASCII Form.

Table 1 (Measurement Flag/Attribute)

Blank = no measurement information applicable

- A = value in precipitation or snow is a multi-day total, accumulated since last measurement
(used on Daily Form pdf file)
- B = precipitation total formed from two twelve-hour totals
- D = precipitation total formed from four six-hour totals
- H = represents highest or lowest hourly temperature (TMAX or TMIN)
or average of hourly values (TAVG)
- K = converted from knots
- L = temperature appears to be lagged with respect to reported
hour of observation
- O = converted from oktas
- P = identified as "missing presumed zero" in DSI 3200 and 3206
- T = trace of precipitation, snowfall, or snow depth
- W = converted from 16-point WBAN code (for wind direction)

Table 2 (Quality Flag/Attribute)

Blank = did not fail any quality assurance check

- D = failed duplicate check
- G = failed gap check
- I = failed internal consistency check
- K = failed streak/frequent-value check
- L = failed check on length of multiday period
- M = failed mega-consistency check
- N = failed naught check
- O = failed climatological outlier check
- R = failed lagged range check

- S = failed spatial consistency check
- T = failed temporal consistency check
- W = temperature too warm for snow
- X = failed bounds check
- Z = flagged as a result of an official Datzilla investigation

Table 3 (Source Flag/Attribute)

Blank = No source (i.e., data value missing)

- 0 = U.S. Cooperative Summary of the Day (NCDC DSI-3200)
- 6 = CDMP Cooperative Summary of the Day (NCDC DSI-3206)
- 7 = U.S. Cooperative Summary of the Day -- Transmitted via WxCoder3 (NCDC DSI-3207)
- A = U.S. Automated Surface Observing System (ASOS) real-time data (since January 1, 2006)
- a = Australian data from the Australian Bureau of Meteorology
- B = U.S. ASOS data for October 2000-December 2005 (NCDC DSI-3211)
- b = Belarus update
- C = Environment Canada
- E = European Climate Assessment and Dataset (Klein Tank et al., 2002)
- F = U.S. Fort data
- G = Official Global Climate Observing System (GCOS) or other government-supplied data
- H = High Plains Regional Climate Center real-time data
- I = International collection (non U.S. data received through personal contacts)
- K = U.S. Cooperative Summary of the Day data digitized from paper observer forms (from 2011 to present)
- M = Monthly METAR Extract (additional ASOS data)
- N = Community Collaborative Rain, Hail, and Snow (CoCoRaHS)
- Q = Data from several African countries that had been "quarantined", that is, withheld from public release until permission was granted from the respective meteorological services
- R = NCDC Reference Network Database (Climate Reference Network and Historical Climatology Network-Modernized)
- r = All-Russian Research Institute of Hydrometeorological Information-World Data Center
- S = Global Summary of the Day (NCDC DSI-9618)
NOTE: "S" values are derived from hourly synoptic reports exchanged on the Global Telecommunications System (GTS). Daily values derived in this fashion may differ significantly from "true" daily data, particularly for precipitation(i.e., use with caution).
- s = China Meteorological Administration/National Meteorological Information Center/Climate Data Center (<http://cdc.cma.gov.cn>)
- T = SNOWpack TElemetry (SNOTEL) data obtained from the Western Regional Climate Center
- U = Remote Automatic Weather Station (RAWS) data obtained from the Western Regional Climate Center
- u = Ukraine update
- W = WBAN/ASOS Summary of the Day from NCDC's Integrated Surface Data (ISD).
- X = U.S. First-Order Summary of the Day (NCDC DSI-3210)
- Z = Datzilla official additions or replacements
- z = Uzbekistan update

Table 4 (observation/value)

Note: 9's in a field (e.g.9999) indicate missing data or data that has not been received.

The five core values are:

PRCP = Precipitation (mm or inches as per user preference, inches to hundredths on Daily Form pdf file)
SNOW = Snowfall (mm or inches as per user preference, inches to tenths on Daily Form pdf file)
SNWD = Snow depth (mm or inches as per user preference, inches on Daily Form pdf file)
TMAX = Maximum temperature (Fahrenheit or Celsius as per user preference, Fahrenheit to tenths on Daily Form pdf file)
TMIN = Minimum temperature (Fahrenheit or Celsius as per user preference, Fahrenheit to tenths on Daily Form pdf file)

The other values are:

ACMC = Average cloudiness midnight to midnight from 30-second ceilometer data (percent)
ACMH = Average cloudiness midnight to midnight from manual observations (percent)
ACSC = Average cloudiness sunrise to sunset from 30-second ceilometer data (percent)
ACSH = Average cloudiness sunrise to sunset from manual observations (percent)
AWND = Average daily wind speed (meters per second or miles per hour as per user preference)
DAEV = Number of days included in the multiday evaporation total (MDEV)
DAPR = Number of days included in the multiday precipitation total (MDPR)
DASF = Number of days included in the multiday snowfall total (MDSF)
DATN = Number of days included in the multiday minimum temperature (MDTN)
DATX = Number of days included in the multiday maximum temperature (MDTX)
DAWM = Number of days included in the multiday wind movement (MDWM)
DWPR = Number of days with non-zero precipitation included in multiday precipitation total (MDPR)
EVAP = Evaporation of water from evaporation pan (mm or inches as per user preference, or hundredths of inches on Daily Form pdf file)
FMTM = Time of fastest mile or fastest 1-minute wind (hours and minutes, i.e., HHMM)
FRGB = Base of frozen ground layer (cm or inches as per user preference)
FRGT = Top of frozen ground layer (cm or inches as per user preference)
FRTH = Thickness of frozen ground layer (cm or inches as per user preference)
GAHT = Difference between river and gauge height (cm or inches as per user preference)
MDEV = Multiday evaporation total (mm or inches as per user preference; use with DAEV)
MDPR = Multiday precipitation total (mm or inches as per user preference; use with DAPR and DWPR, if available)
MDSF = Multiday snowfall total (mm or inches as per user preference)
MDTN = Multiday minimum temperature (Fahrenheit or Celsius as per user preference ; use with DATN)
MDTX = Multiday maximum temperature (Fahrenheit or Celsius as per user preference ; use with DATX)
MDWM = Multiday wind movement (miles or km as per user preference)
MNPV = Daily minimum temperature of water in an evaporation pan (Fahrenheit or Celsius as per user preference)
MXPV = Daily maximum temperature of water in an evaporation pan (Fahrenheit or Celsius as per user preference)

PGTM = Peak gust time (hours and minutes, i.e., HHMM)

PSUN = Daily percent of possible sunshine (percent)

SN*# = Minimum soil temperature where * corresponds to a code for ground cover and # corresponds to a code for soil depth (Fahrenheit or Celsius as per user preference)

Ground cover codes include the following:

0 = unknown

1 = grass

2 = fallow

3 = bare ground

4 = brome grass

5 = sod

6 = straw mulch

7 = grass muck

8 = bare muck

Depth codes include the following:

1 = 5 cm

2 = 10 cm

3 = 20 cm

4 = 50 cm

5 = 100 cm

6 = 150 cm

7 = 180 cm

SX*# = Maximum soil temperature where * corresponds to a code for ground

cover and # corresponds to a code for soil depth. See SN*# for depth codes. (Fahrenheit or Celsius as per user preference)

THIC = Thickness of ice on water (inches or mm as per user preference)

TOBS = Temperature at the time of observation (Fahrenheit or Celsius as per user preference)

TSUN = Daily total sunshine (minutes)

WDF1 = Direction of fastest 1-minute wind (degrees)

WDF2 = Direction of fastest 2-minute wind (degrees)

WDF5 = Direction of fastest 5-second wind (degrees)

WDFG = Direction of peak wind gust (degrees)

WDFI = Direction of highest instantaneous wind (degrees)

WDFM = Fastest mile wind direction (degrees)

WDMV = 24-hour wind movement (km or miles as per user preference, miles on Daily Form pdf file)

WESD = Water equivalent of snow on the ground (inches or mm as per user preference)

WESF = Water equivalent of snowfall (inches or mm as per user preference)

WSF1 = Fastest 1-minute wind speed (miles per hour or meters per second as per user preference)

WSF2 = Fastest 2-minute wind speed (miles per hour or meters per second as per user preference)

WSF5 = Fastest 5-second wind speed (miles per hour or meters per second as per user preference)

WSFG = Peak guest wind speed (miles per hour or meters per second as per user preference)

WSFI = Highest instantaneous wind speed (miles per hour or meters per second as per user preference)

WSFM = Fastest mile wind speed (miles per hour or meters per second as per user preference)

WT** = Weather Type where ** has one of the following values:

- 01 = Fog, ice fog, or freezing fog (may include heavy fog)
- 02 = Heavy fog or heaving freezing fog (not always distinguished from fog)
- 03 = Thunder
- 04 = Ice pellets, sleet, snow pellets, or small hail
- 05 = Hail (may include small hail)
- 06 = Glaze or rime
- 07 = Dust, volcanic ash, blowing dust, blowing sand, or blowing obstruction
- 08 = Smoke or haze
- 09 = Blowing or drifting snow
- 10 = Tornado, waterspout, or funnel cloud
- 11 = High or damaging winds
- 12 = Blowing spray
- 13 = Mist
- 14 = Drizzle
- 15 = Freezing drizzle
- 16 = Rain (may include freezing rain, drizzle, and freezing drizzle)
- 17 = Freezing rain
- 18 = Snow, snow pellets, snow grains, or ice crystals
- 19 = Unknown source of precipitation
- 21 = Ground fog
- 22 = Ice fog or freezing fog

WVxx = Weather in the Vicinity where “xx” has one of the following values

- 01 = Fog, ice fog, or freezing fog (may include heavy fog)
- 03 = Thunder
- 07 = Ash, dust, sand, or other blowing obstruction
- 18 = Snow or ice crystals
- 20 = Rain or snow shower

Additional details are available online at <http://www1.ncdc.noaa.gov/pub/data/ghcn/daily/readme.txt> (note the readme file does not apply to the Daily Form pdf file or CSV outputs, however values are the same, other than a few differences in units noted in table 4 above).